REGD. GOA - 5

Panaji, 20th August, 1992 (Sravana 29, 1914)

SERIES I No. 21

OFFICIAL GAZETTE

GOVERNMENT OF GOA

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Department of Labour

Notification

26/6/92-LAB

The draft of certain rules which the Government of Goa, proposes to make in exercise of the powers conferred by section 112 read with section 41B of the Factories Act, 1948 (Central Act 63 of 1948) is hereby pre-published as required by section 115 of the said Act, for information of the persons likely to be affected thereby and notice is hereby given that the said draft will be taken into consideration by the Government of Goa after the expiry of three months from the date of publication of this Notification in the Official Gazette.

Any objections or suggestions to the said draft may be forwarded to the Secretary to the Government of Goa, Labour Department, Secretariat, Panaji, before the expiry of three months from the date of publication of this Notification in the Official Gazette.

DRAFT

In exercise of the powers conferred by section 112 read with section 41B of the Factories Act, 1948 (Central Act 63 of 1948), and all other powers enabling it in that behalf, the Government of Goa hereby makes the following rules, namely:—

1. *Short title and commencement.* — (1) These rules may be called the 'Control of Industrial Major Accident Hazards Rules, 1992'

(2) They shall come into force at once.

(3) These rules supplement the rules already notified under Chapter IV-A of the Factories Act, 1948.

2. *Definitions.* — In these rules, unless the context otherwise requires—

(a) "hazardous chemical" means—

(i) any chemical which satisfies any of the criteria laid down in Part I of Schedule 1 and is listed in Column 2 of Part II of that Schedule; or

(ii) any chemical listed in Column 2 of Schedule 2; or

(iii) any chemical listed in Column 2 of Schedule 3.

(b) "industrial activity" means—

(i) an operation or process carried out in an industrial installation referred to in Schedule 4 involving or likely to involve one or more hazardous chemicals and includes on-site storage or on-site transport which is associated with that operation or process, as the case may be; or

(ii) isolated storage.

(c) "isolated storage" means storage where no other manufacturing process other than pumping of hazardous chemical is carried out and that storage involves at least a quantity of that chemical set out in Schedule 2 but does not include storage associated with an installation specified in Schedule 4 on the same site.

(d) "major accident" means an occurrence (including in particular, a major emission, fire or explosion) involving one or more hazardous chemicals and resulting from uncontrolled developments in the course of an industrial activity or owing to natural events, leading to a serious danger to persons, whether immediate or delayed, inside or outside the installation or damage to property or adverse effects on the environment;

(e) "pipeline" means a pipe (together with any apparatus and works associated therewith) or system of pipes (together with any apparatus and works associated therewith), for the conveyance of a hazardous chemical, other than a flammable gas as set out in Column 2 of Part II of Schedule 3 at a pressure of less than 8 bars absolute;

(f) "Schedule" means Schedule appended to these rules;

(g) "site" means any location where hazardous chemicals are manufactured or processed, stored, handled, used, disposed off and includes the whole of an area under the control of occupier;

(h) Words and expressions not defined in these rules but defined or used in the Factories Act, 1948 and the rules made thereunder shall have the same meaning as assigned therein.

3. *Collection, development and dissemination of information.* — (1) This rule shall apply to an industrial activity in which a hazardous chemical which satisfies any of the criteria laid down in Part I of Schedule 1 and is listed in Column 2 of Part II of that Schedule is or may be involved.

(2) An occupier, who has control of an industrial activity in terms of sub-rule (1) of this rule, shall

arrange to obtain or develop detailed information on hazardous chemical in the form of a material safety data sheet as indicated in Schedule 5. The information shall be accessible to workers upon request for reference.

(3) The occupier while obtaining or developing a material safety data sheet as indicated in Schedule 5 in respect of hazardous chemical handled by him shall ensure that the information is recorded accurately and reflects the scientific evidence used in making the hazard determination. In case, any significant information regarding hazard of a chemical is available, it shall be added to the material safety data sheet as indicated in Schedule 5 as soon as practicable.

(4) Every container of a hazardous chemical shall be clearly labelled or marked to identify —

(a) the contents of the container;

(b) the name and address of the manufacturer or importer of the hazardous chemical; and

(c) the physical, chemical and toxicological data of the hazardous chemical.

(5) In terms of sub-rule (4) of this rule where it is impractical to lebel a chemical in view of the size of the container or the nature of the package, provision shall be made for other effective means like tagging or accompanying documents.

4. *General responsibility of the occupiers.* — (1) This rule shall apply to —

(a) an industrial activity, other than isolated storage, in which a hazardous chemical which satisfies any of the criteria laid in Part I of Schedule 1 and is listed in Column 2 of Part II of that Schedule is or may be involved; and

(b) isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the Schedule for that chemical in Column 3 thereof.

(2) An occupier who has control of an industrial activity in terms of sub-rule (1) of this rule, shall provide evidence to show that he has —

(a) identified the major accident hazards; and

(b) taken adequate steps to —

(i) prevent such major accidents and to limit their consequences to persons and to environment; and

(ii) provide the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety.

5. *Notification of major accidents.* — (1) Where a major accident occurs on a site, the occupier shall forthwith notify the Inspector and the Chief Inspector of that accident, and furnish thereafter to the Chief Inspector a report relating to the accident in instalments if necessary, in Schedule 6.

(2) The Chief Inspector shall on receipt of the report in accordance with sub-rule (1) of this rule, shall undertake a full analysis of the major accident and send the requisite information to the Directorate General Factory Advice Service and Labour Institutes (DGFASLI) and the Ministry of Labour through appropriate channel.

6. *Industrial activities to which rules 7 to 15 apply.* — (1) (a) Rules 5 to 9 and 13 to 15 shall apply to an industrial activity, other than isolated storage, in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in Column 3;

(b) Rules 10 to 12 shall apply to an Industrial activity, other than isolated storage, in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in Column 4;

(c) Rules 7 to 9 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the entry for that chemical in Column 3; and

(d) Rules 10 to 15 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the entry for that chemical in Column 4.

(2) For the purposes of Rules 7 to 15 —

(2) a "new industrial activity" means an industrial activity which —

(i) was commenced after the date of coming into operation of these rules; or

(ii) if commenced before that date, is an industrial activity in which there has been since that date a modification which would be likely to have important implications for major accident hazards, and that activity shall be deemed to have been commenced on the date on which the modification was made; and

(b) an "existing industrial activity" means an industrial activity which is not a new industrial activity.

7. *Notification of industrial activities.* — (1) An occupier shall not undertake any industrial activity unless he has submitted a written report to the Chief Inspector containing the particulars specified in Schedule 7 at least 3 months before commencing that activity or before such shorter time as the Chief Inspector may agree and for the purpose of this sub-rule, an activity in which subsequently there is or is liable to be a quantity given in Column 3 of Schedules 2 and 3 or more of an additional hazardous chemical shall be deemed to be a different activity and shall be notified accordingly.

(2) No report under sub-rule (1) of this rule need to be submitted by the occupier, if he submits a report under rule 10(1).

8. *Updating of the Notification under rule 7.* — Where an activity has been reported in accordance with rule 7(1) and the occupier makes a change in it (including an increase or decrease in the maximum quantity of a hazardous chemical to which this rule

applies which is or is liable to be at the site or in the pipeline or the cessation of the activity) which affects the particulars specified in that report or any subsequent report made under this rule, the occupier shall forthwith furnish a further report to the Chief Inspector.

9. *Transitional provision.* — Where. —

(a) at the date of coming into operation of these rules, an occupier who is in control of an existing industrial activity which is required to be reported under rule 7(1); or

(b) within 6 months after that date an occupier commences any such new industrial activity;

it shall be a sufficient compliance with that rule if he reports to the Chief Inspector as per the particulars in Schedule 7 within 3 months after the date of coming into operation of these rules or within such longer time as the Chief Inspector may agree in writing.

10. *Safety Reports.* — (1) Subject to the following sub-rules of this rule, an occupier shall not undertake any industrial activity to which these rules apply, unless he has prepared a safety report on that industrial activity containing the information specified in Schedule 8 and has sent a copy of that report to the Chief Inspector at least 3 months before commencing that activity.

(2) In the case of a new industrial activity which an occupier commences, or by virtue of sub-rule (2)(a)(ii) of rule 6 is deemed to commence, within 6 months after coming into operation of these rules, it shall be a sufficient compliance with sub-rule (1) of this rule if the occupier sends to the Chief Inspector a copy of the report required in accordance with that sub-rule within 3 months after the date of coming into operation of these rules.

(3) In the case of an existing industrial activity, until five years from the date of coming into operation of these rules, it shall be a sufficient compliance with sub-rule (1) of this rule, if the occupier on or before 3 months from the date of coming into operation of these rules, sends to the Chief Inspector the information specified in Schedule 7 relating to that activity.

11. *Updating of reports under rule 10.* — (1) where an occupier has made a safety report in accordance with sub-rule (1) of rule 10, he shall not make any modification to the industrial activity to which that safety report relates which could materially affect the particulars in that report, unless he has made a further report to take account of these modifications and has sent copy of that report to the Chief Inspector atleast 3 months before making those modifications.

(2) Where an occupier has made a report in accordance with rule 10 and sub-rule (1) of this rule and that industrial activity is continuing, the occupier shall within three years of the date of last such report, make a further report which shall have regard in particular to new technical knowledge which has affected the particulars in the previous report relating to safety and hazard assessment, and shall within 1 month or in such longer time as the Chief Inspector may agree in writing, send a copy of the report to the Chief Inspector.

12. *Requirements for further information.*—Where in accordance with rule 10(1), an occupier has sent a safety report relating to an industrial activity to the Chief Inspector, the Chief Inspector may, by a notice served on the occupier, require him to provide such additional information as is specified in the notice and the occupier shall send that information to the Chief Inspector within such time as is specified in the notice or within such extended time as the Chief Inspector may subsequently specify.

13. *Preparation of on-site emergency plans by the occupiers.* — (1) An occupier who has control of an industrial activity to which this rule applies shall prepare in consultation with the Chief Inspector, keep up to date and furnish to the Chief Inspector and the Inspector, an on-site emergency plan detailing how major accidents will be dealt with on the site on which the industrial activity is carried on and that plan shall include the name of the person who is responsible for safety on the site and the names of those who are authorised to take action in accordance with the plan in case of an emergency.

(2) The occupier shall ensure that the emergency plan prepared in accordance with sub-rule (1) of this rule, takes into account any modification made in the industrial activity and that every person on the site who is affected by the plan is informed of its relevant provisions.

(3) The occupier shall prepare the emergency plan required under sub-rule (1) of this rule —

(a) in the case of a new industrial activity, before that activity is commenced; except that, in the case of a new industrial activity which is commenced or is deemed to have been commenced before a date of 3 months after the coming into operation of these rules, by that date; or

(b) in the case of an existing industrial activity within 3 months of coming into operation of these rules.

14. *Preparation of off-site emergency plans.* — (1) It shall be the duty of the District Collector or the District Emergency Authority designated by the State Government in whose area there is a site on which an occupier carried on an industrial activity to which this rule applies, to prepare and keep up to date an adequate off-site emergency plan detailing how emergency relating to a possible major accident on that site will be dealt with and in preparing that plan, the Authority shall consult the occupier, the Chief Inspector and such other persons, as appear to the Authority to be appropriate.

(2) The occupier shall provide the District Collector or the District Emergency Authority with such information relating to the industrial activity under his control as may be necessary to enable the District Collector or the District Emergency Authority to prepare an off-site emergency plan under sub-rule(1) of this rule including the nature, extent and likely effects of off-site possible major accidents as well as any additional information as

the District Collector or the District Emergency Authority may require in this regard.

(3) The District Collector or the District Emergency Authority shall provide the occupier with information from the off-site emergency plan which relates to his duties under rule 13 or sub-rule (2) of this rule.

(4) The District Collector or the District Emergency Authority shall prepare its emergency plan for any industrial activity required under sub-rule (1) of this rule —

(a) in the case of a new industrial activity, before that activity is commenced;

(b) in the case of an existing industrial activity, within 6 months of its being notified by the occupier of the industrial activity.

15. *Information to be given to persons liable to be affected by a major accident.*— (1) The occupier shall take appropriate steps to inform persons outside the site who are likely to be in an area which might be affected by a major accident at any site on which an industrial activity under his control to which this rule applies, is carried on either directly or through the District Emergency Authority about—

(a) the nature of the major accident hazard; and

(b) the safety measures and the current behaviour which should be adopted in the event of a major accident.

(2) The occupier shall take the steps required under sub-rule (1) of this rule to inform persons about an industrial activity, before that activity is commenced, except that, in the case of an existing industrial activity in which case the occupier shall comply with the requirements of sub-rule (1) of this rule within 3 months of coming into operation of these rules.

16. *Disclosure of information notified under these rules.* — Where for the purpose of evaluating information notified under rule 5 or rules 7 to 15, the Inspector or the Chief Inspector or the District Emergency Authority discloses that information to some other person, that other person shall not use that information for any purpose except for the purpose of the Inspector or the Chief Inspector or the District Emergency Authority disclosing it, as the case may be and before disclosing that information, the Inspector or the Chief Inspector or the District Emergency Authority, as the case may be, shall inform that other person of his obligations under this rule.

17. *Improvement notice.* — (1) If an Inspector is of the opinion that an occupier —

(a) is contravening one or more of these rules; or

(b) has contravened one or more of these rules in circumstances that make it likely that the contravention will continue or be repeated, he may serve on him a notice (in this rule referred to as "an improvement notice"), stating that he is of that opinion, specifying the rule or rules as to which he is of that opinion, giving particulars of the reasons why he is of that opinion, and requiring that occupier to remedy the contravention or, as the case may be, the matters occasioning it within such period as may be specified in the notice.

(2) A notice served under sub-rule (1) of this rule may (but need not) include directions as to the matters to be taken by the occupier to remedy any contravention or matter to which the notice relates.

18. *Power of the State Government to modify the Schedules.*—The State Government may, at any time, by notification in the Official Gazette, make suitable changes in the Schedules.

SCHEDULE 1

[*See* rules 2(a)(i), 3(1), 4(1)(a) and 4(2)(1)]

Indicative Criteria and List of Chemicals

INDICATIVE CRITERIA

PART I

(a) *Toxic Chemicals:* Chemicals having the following values of acute toxicity and which, owing to their physical and chemical properties are capable of producing major accident hazards.

Sl. No.	Degree of toxicity	LD 50 absorbed orally in rats mg/kg body weight	LD50 by cutaneous absorption in rats / rabbits mg/kg body weight	LC50 absorbed by inhalation (4 hours) in rats mg/litre
1.	Extremely toxic	< == 50	< == 200	0.1 — 0.5
2.	Highly toxic	51 — 500	201—2000	0.5 — 2.0

(b) *Flammable chemicals:*

(i) Flammable gases: Chemicals which in the gaseous state at normal pressure and mixed with air become flammable and the boiling point of which at normal pressure is 20 degree C or below;

(ii) highly flammable liquids: Chemicals which have a flash point lower than 23°C and the boiling point of which at normal pressure is above 20°C;

(iii) Flammable liquids: Chemicals which have a flash point lower than 65°C and which remain liquid under pressure, where particular processing conditions, such as high pressure and high temperature, may create major accident hazards.

(c) *Explosives:* Chemicals which may explode under the effect of flame heat or photo-chemical condition, or which are more sensitive to shocks or friction than dinitrobenzene.

PART II

List of Hazardous Chemicals

Sl. No. (Col. 1)	Name of the chemical (Column 2)
1.	2.
1.	Acetone
2.	Acetone Cyanohydrine
3.	Acetyl Chloride
4.	Acetylene (Ethyne)
5.	Acrolein (2-propenal)
6.	Acrylonitrile

1.	2.
7.	Aldicarb
8.	Aldrine
9.	Alkyl Phthalate
10.	Allyl Alcohol
11.	Allylamine
12.	Alpha Naphthyl Thiourea (Antu)
13.	4-Aminodiphenyl
14.	2-Aminophenol
15.	Amiton
16.	Ammonia
17.	Ammonium Nitrate
18.	Ammonium Nitrate in Fertilizers
19.	Ammonium Sulfamate
20.	Anabasine
21.	Aniline
22.	p-Anisidine
23.	Antimony & Compounds
24.	Antimony Hydride (Stibine)
25.	Arsenic Hydride (Arsine)
26.	Arsenic pentoxide, Arsenic(V) Acid & Salts
27.	Arsenic Trioxide, Arsenious (III) Acids & Salts
28.	Asbestos
29.	Azinphos ethyl
30	Azinphos-Methyl
31.	Barium Azide
32.	Benzene
33.	Benzidine
34.	Benzidine Salts
35.	Benzoquinone
36.	Benzoyl Chloride
37.	Benzoyl Peroxide
38.	Benzyl Chloride
39.	Benzyl Cyanide
40.	Beryllium (Powders, Compounds)
41.	Biphenyl
42.	BIS (2-Chloromethyl) Ketone
43.	BIS (2, 4, 6-Trinitrophenyl) Amine
44.	BIS (2-Chloroethyl) Sulphide
45.	BIS (Chloromethyl) Ether
46.	2, 2-BIS (tert-Butylperoxy)Butane
47.	1, 1-BIS (tert-Butylperoxy) Cyclohexane
48.	BIS-1, 2 (Tribromophenoxy)-Ethane
49.	Bisphenol
50.	Boron & Compounds
51.	Bromine
52.	Bromine Pentafluoride
53.	Bromoform
54.	1, 3-Butadiene
55.	Butane
56.	N-Butanethiol
57.	2-Butanone
58.	Butoxy Ethanol
59.	Butyl Glycidal Ether
60.	tert-Butyl Peroxyacetate
61.	tert-Butyl Peroxyisobutyrate
62.	tert-Butyl Peroxyisopropyl Carbonate
63.	tert-Butyl Peroxymaleate
64.	tert-Butyl Peroxypivalate
65.	Butyl Vinyl Ether
66.	Butylamine
67.	C9-Aromatic Hydrocarbon Fraction
68.	Cadmium & Compounds
69.	Cadmium oxide (fumes)
70.	Calcium Cyanide
71.	Captan
72.	Captofol
73.	Carbaryl (Sevin)
74.	Cabofuran
75.	Carbon Disulphide
76.	Carbon Monoxide
77.	Carbon Tetrachloride
78.	Carbophenothion
79.	Cellulose Nitrate
80.	Chlorates (use in explosives)
81.	Chlordane
82.	Chlorfenvinphos
83.	Chlorinated Benzenes
84.	Chlorine
85.	Chlorine Dioxide
86.	Chlorine Oxide
87.	Chlorine Trifluoride
88.	Chlormequate Chloride
89.	Chloroacetal Chloride
90.	Chloroacetaldehyde
91.	2 - Chloroaniline
92.	4 - Chloroaniline
93.	Chlorobenzene
94.	Chlorodiphenyl
95.	Chloroepoxypropane
96.	Chloroethanol
97.	Chloroethyl Chloroformate
98.	Chlorofluorocarbons
99.	Chloroform
100.	4 - (Chloroformyl), Morpholine
101.	Chloromethane
102.	Chloromethyl Ether
103.	Chloronitrobenzene
104.	Chloroprene
105.	Chlorosulphonic acid
106.	Chlorotritrobenzene
107.	Chloroxuron
108.	Chromium & Compounds
109.	Cobolt & Compounds
110.	Copper & Compounds
111.	Coumafuryl
112.	Coumaphos
113.	Coumatetralyl
114.	Cresols
115.	Crimidine
116.	Cumene
117.	Cyanophos
118.	Cyanothoate
119.	Cyanuric Fluoride
120.	Cyclohexane
121.	Cyclohexanol
122.	Cyclohexanone
123.	Cyclohexamide
124.	Cyclopentadiene
125.	Cyclopentane
126.	Cyclotetramethylenetetranitramine
127.	Cyclotrimethylenetrinitramine
128.	Ddt
129.	Decabromodiphenyl Oxide
130.	Demeton
131.	Di-Isobutyryl Peroxide
132.	Di - n - Propyl Peroxydicarbonate
133.	Di-sec-Butyl Peroxydicarbonate
134.	Dialifos
135.	Diazodinitrophenol
136.	Diazomethane
137.	Dibenzyl Peroxydicarbonate
138.	Dichloroacetylene
139.	o - Dichlorobenzene
140.	p - Dichlorobenzene
141.	Dichloroethane
142.	Dichloroethyl Ether
143.	2, 4-Dichlorophenol
144.	2, 6-Dichlorophenol
145.	2, 4-Dichlorophenoxy Acetic Acid, (2, 4-D)
146.	1, 2-Dichloropropane
147.	3, 5-Dichlorosalicylic Acid
148.	Dichlorovos (Ddvp)
149.	Dicrotophos
150.	Dieldrine
151.	Diepoxybutane
152.	Diethyl Peroxydicarbonate
153.	Diethylene Glycol Dinitrate
154.	Diethylene Triamine
155.	Diethyleneglycol Butyl Ether/Diethyleneglycol Butyl Acetate
156.	Diethylenetriamine (Deta)
157.	Diglycidyl Ether
158.	2, 2-Dihydroperoxypropane
159.	Diisobutyryl Peroxide
160.	Dimefox
161.	Dimethoate
162.	Dimethyl Phosphoramidocyanidic Acid
163.	Dimethyl Phthalate
164.	Dimethylcarbomoyl Chloride
165.	Dimethylnitrosamine
166.	Dinitrophenol, Salts
167.	Dinitrotoluene
168.	Dinitro-o-Cresol
169.	Dioxane
170.	Dioxathion
171.	Dioxolane
172.	Diphacinone
173.	Diphosphoramine Octamethyl
174.	Dipropylene Glycolmethylether
175.	Disulpoton
176.	Endosulfan

1.	2.
177.	Endrin
178.	Epichlorohydrine
179.	Epn
180.	1, 2 - Epoxypropane.
181.	Ethion
182.	Ethyl Carbamate
183.	Ethyl Ether
184.	2-Thtyl Hexanol
185.	Ethyl Mercaptan
186.	Ethyl Methacrylate
187.	Ethyl Nitrate
188.	Ethylamine
189.	Ethylene
190.	Ethylene Chlorohydrine
191.	Ethylene Diamine
192.	Ethylene Dibromide
193.	Ethylene Dichloride
194.	Ethylene Glycol Dinitrate
195.	Ethylene Oxide
196.	Ethylene Imine
197.	Ethylthiocyanate
198.	Fensulphothion
199.	Fluenetil
200.	4-Fluoro, 2-Hydroxybutyric Acid & Salts, Esters, Amides
201.	Fluoroacetic Acid & Salts, Esters, Amides
202.	4-Fluorobutyric Acid & Salts, Esters, Amides
203.	4-Fluorochrotonic Acid & Salts, Esters, Amides
204.	Formaldehyde
205.	Glyconitrile (Hydroxyacetonitrile)
206.	1-Guanyl-4-Nitrosaminoguanyl-1-Tetraxene
207.	Heptachlor
208.	Hexachloro Cyclopentadiene
209.	Hexachlorocyclohexane
210.	Hexachlorocyclomethane
211.	1, 2, 3, 7, 8, 9-Hexachlorodibenzo-p-Dioxine
212.	Hexapluopropene
213.	Hexamethylphosphoramide
214.	3, 3, 6, 6, 9, 9 - Hexamethyl-1, 2, 4, 5-Tetroxacyclononane
215.	Hexamethylenediamine
216.	Hexane
217.	2, 2', 4, 4', 6, 6'-Hexanitrostilbene
218.	Hexavalent Chromium
219.	Hydrazine
220.	Hydrizine Nitrate
221.	Hydrochloric Acid
222.	Hydrogen
223.	Hydrogen Bromide (Hydrobromic Acid)
224.	Hydrogen Chloride (Liquefied Gas)
225.	Hydrogen Cyanide
226.	Hydrogen Fluoride
227.	Hydrogen Selenide
228.	Hydrogen Sulphide
229.	Hydroquinone
230.	Iodine
231.	Isobenzan
232.	Isodrin
233.	Isophorone Diisocyanate
234.	Isoprophy Ether
235.	Juglone (5-Hydroxynaphthalene-1, 4-Dione)
236.	Lead (inorganic fumes & dusts)
237.	Lead 2, 4, 6-Trinitroresorcinoxide (Lead Styphnate)
238.	Lead Azide
239.	Leptophos
240.	Lindane
241.	Liquefied Petroleum Gas (LPG)
242.	Maleic Anhydride
243.	Manganese & Compounds
244.	Mercapto Benzothiazole
245.	Mercury Alkyl
246.	Mercury Fulminate
247.	Mercury Methyl
248.	Methacrylic Anhydride
249.	Methacrylonitrile
250.	Methacryloyl Chloride
251.	Methamidophos
252.	Methanesuphonyl Fluoride
253.	Methanethiol
254.	Methoxy Ethanol (2-Methyl Cellosolve)
255.	Methoxyethylmercuric Acetate
256.	Methyl Acrylate
257.	Methyl Alcohol
258.	Methyl Amylketone
259.	Methyl Bromide (Bromomethane)
260.	Methyl Chloride
261.	Methyl Chloroform

1.	2.
262.	Methyl Cyclohexene
263.	Methyl Ethyl Ketone Peroxide
264.	Methyl Hydrazine
265.	Methyl Isobutyl Ketone
266.	Methyl Isobutyl Ketone Peroxide
267.	Methyl Isocyanate
268.	Methyl Isothiocyanate
269.	Methyl Mercaptan
270.	Methyl Methacrylate
271.	Methyl Parathion
272.	Methyl Phosphonic Dichloride
273.	N-Methyl, 2, 4, 6, - Tetranitroaniline)
274.	Methylene Chloride
275.	4, 4' - Methylenebis (2-Chloroaniline)
276.	Methyltrichlorosilane
277.	Mevinphos
278.	Molybdenum & Compounds
279.	N-Methyl-n, 2, 4, 6-N-Tetranitroaniline
280.	Naphtha (Coal Tar)
281.	Nickel & Compounds
282.	Nickel Tetracarbonyl
283.	o-Nitroaniline
284.	p-Nitroaniline
285.	Nitrobenzene
286.	p-Nitrochlorobenzene
287.	Nitrocyclohexane
288.	Nitroethane
289.	Nitrogen Dioxide
290.	2-Naphithylamine
291.	Nitrogen Oxides
292.	Nitrogen Trifluoride
293.	Nitroglycerine
294.	p-Nitrophenol
295.	1-Nitrophopane
296.	2-Nitropropane
297.	Nitrosodimethylamine
298.	Nitrotolune
299.	Octobromophenyl Oxide
309.	Oleum
301.	Oleylamine
302.	oo-Diethyl S-Ethylsulphinylmethyl Phosphorothioate
303.	oo-Diethyl S-Ethylsulphonylmethyl Phosphorothioate
304.	oo-Diethyl S-Ethylthiomethyl Phosphorothioate
305.	oo-Diethyl S-Isopropylthiomethyl Phosphorodithioate
306.	oo-Diethyl S-Propylthiomethyl Phosphorodithioate
307.	Oxyamyl
308.	Oxydisulfoton
309.	Oxygen (Liquid)
310.	Oxygen Difluoride
311.	Ozone
312.	Paraoxon (Diethyl 4-Nitophenyl Phosphate)
313.	Paraquat
314.	Parathion
315.	Parathion Methyl
316.	Paris Green (Bis Aceto Hexametaarsenitotetra Copper)
317.	Pentoborane
318.	Pentabromodiphenyl Oxide
319.	Pentabromophenol
320.	Pentachloro Naphthalene
321.	Pentachloroethane
322.	Pentachlorophenol
323.	Pentaerythritol Tetranitrate
324.	Pentane
325.	Peracetic Acid
326.	Perchlorcethylene
327.	Perchloromethyl Mercaptan
328.	2-Pentanone, 4-Methyl
329.	Phenol
330.	Phenyl Glycidal Ether
331.	Phenylene P-Diamine
332.	Phenylmercury Acetate
333.	Phorate
334.	Phosacetim
335.	Phosalane
336.	Phosfolan
337.	Phosgene (Carbonyl Chloride)
338.	Phosmet
339.	Phosphamidone
340.	Phosphine (Hydrogen Phosphide)
341.	Phosphoric Acid and Esters
342.	Phosphoric Acid, Bromoethyl Brome (2, 2-Dimethylpropyl) Bromoethyl Ester
343.	Phosphoric Acid, Bromoethyl Bromo (2, 2-Dimethylpropyl) Chloroethyl Ester

1.	2.
344.	Phosphoric Acid, Chloroethyl Bromo (2, 2-Dimethoxylpropyl) Chloroethyl Ester
345.	Phosphorous & Compounds
346.	Phostalan
347.	Picric Acid (2, 4, 6-Trinitrophenol)
348.	Polybrominated Biphenyls
349.	Potassium Arsenite
350.	Potassium Chlorate
351.	Promurit (1-(3, 4-Dichlorophenyl)-3--Triazenethiocarboxamide)
352.	1, 3-Propanesultone
353.	1-Propen,-2-Chloro-1, 3-Diol-Diacetate
354.	Propylene Dichloride
355.	Propylene Oxide
356.	Propyleneimine
357.	Pyrazoxon
358.	Selenium Hexafluoride
359.	Semicarbazide Hydrochloride
360.	Sodium Arsenite
361.	Sodium Azide
362.	Sodium Chlorate
363.	Sodium Cyanide
364.	Sodium Picramate
365.	Sodium Selenite
366.	Styrene, 1, 1, 2, 2-Tetrachloroethane
367.	Sulfotep
368.	Sulphur Dichloride
369.	Sulphur Dioxide
370.	Sulphur Trioxide
371.	Sulphuric Acid
372.	Sulphoxide, 3-Chloropropyloctyl
373.	Tellurium
374.	Tellurium Hexafluoride
375.	Tepp
376.	Terbufos
377.	alpha-Terabromobisphenol
378.	2 2 5 6-Tetrachloro-2, 5-Cyclohexadiene-1, 4-Dione
379.	2 3 7 8-Tetrachlorodibenzo-p-Dioxin (Tcdd)
380.	Tetraethyl Lead
381.	Tetrafluoroethane
382.	Tetramethylenedisulphotetramine
383.	Tetramethyl Lead
384.	Tetranitromethane
385.	Thallium & Compounds
386.	Thionazin
387.	Thionyl Chloride
388.	Tirpate
389.	Toluene
390.	Toluene-2-4-Diisocyanate
391.	o-Toluidine
392.	Toluene 2, 6-Diisocyanate
393.	Trans-1, 4-Chlorobutene
394.	1-Tri, (Cyclohexyl) Stannyl-1 H-1, 2, 4-Triazole
395.	1 3 5-Triamino-2, 4, 6-Trinitrobenzene
396.	2 4 6-Tribromophenol
397.	Trichloro Acetyl Chloride
398.	Trichloro Ethane
399.	Trichloro Naphthalene
400.	Trichlorochloromethylsilane
401.	Trichlorodichlorophenylsilane
402.	1, 1, 1-Trichloroethane
403.	Trichloroethyl Silane
404.	Trichloroethylene
405.	Trichloromethanesulphenyl Chloride
406.	2, 2, 6-Trichlorophenol
407.	2, 4, 5-Trichlorophenol
408.	Triethylamine
409.	Triethylenemelamine
410.	Trimethyl Chlorosilane
411.	Trimethylolpropane Phosphite
412.	Trinitroaniline
413.	2, 4, 6-Trinitroanisole
414.	Trinitrobenzene
415.	Trinitrobenzonic Acid
416.	Trinitrocresol
417.	2, 4, 6-Trinitrophenetole
418.	2, 4, 6-Trinitroresorcinol (Styphnic Acid)
419.	Trinitrotoluene
420.	Triorthocresyl Phosphate
421.	Triphenyltin Chloride
422.	Terpentine
423.	Uranium & Compounds
424.	Vanadium & Compounds
425.	Vinyl Chloride
426.	Vinyl Fluoride
427.	Vinyl Toluene
428.	Warfarin
429.	Xylene
430.	Xylidine
431.	Zinc & Compounds
432.	Zirconium & Compounds

SCHEDULE 2

[See rules 2(a) (ii), 4(1) (b), 4(2) (1) and 6(1) (c) & (d)]

Isolated storage of Installation other than those covered by Schedule 4

(a) The quantities set out below relate to each installation for group of installations belonging to the occupier where the distance between installations is not sufficient to avoid, in foreseeable circumstances, any aggravation of major accident hazards. These quantities apply in any case to each of the installations belonging to the same occupier where the distance between the installations is less than 500 metres.

(b) For the purpose of determining the quantity of a hazardous chemical at an isolated storage, account shall also be taken of any hazardous chemical which is —

(i) in that part of any pipeline under the control of the occupier having control of the site, which is within 500 metres of that site and connected to it;

(ii) at any other site under the control of the occupier any part of the boundary of which is 500 metres of the said site; and

(iii) in any vehicles, vessel, aircraft or hovercraft under the control of the same occupier which is used for storage purpose either at the site or within 500 metres of it,

but no account shall be taken of any hazardous chemical which is in a vehicle vessel, aircraft or hovercraft for transporting it.

Sl. No.	Chemical or groups of chemicals	Quantity (tonnes) For application of rules 4, 5, and 7 to 9	For application of rules 10 to 15
(Col. 1)	(Col. 2)	(Col. 3)	(Col. 4)
1.	Acrylonitrile	350	5 000
2.	Ammonia	60	600
3.	Ammonium Nitrate (a)	350*	2 500*
4.	Ammonium nitrate fertilizers (b)	1250	10 000
5.	Chlorine	10	25
6.	Flammable gases as defined in Schedule 1, paragraph (b) (i)	50	300
7.	Highly flammable liquids as defined in Schedule 1, Paragraph (b) (ii)	10 000	1 00 000
8.	Liquid oxygen	200	2 000
9.	Sodium chlorate	25	250
10.	Sulphur dioxide	20	500
11.	Sulphur trioxide	15	100

* Where this chemical is in a state which gives it properities capable of creating a major accident hazard.

Footnotes:

(a) This applies to ammonium nitrate and mixtures of ammonium nitrate where the nitrogen content derived from the ammonium nitrate is greater than 28 per cent by weight and to aqueous solution of ammonium nitrate where the concentration of ammonium nitrate is greater than 90 per cent by weight.

(b) This applies to straight ammonium nitrate fertilizers and to compound fertilisers where the nitrogen

content derived from the ammonium nitrate is greater than 28 percent by weight (a compound fertiliser contains ammonium nitrate together with phosphate and/or potash).

SCHEDULE 3

[*See* rules 2(a)(iii), 5 and 6(1)(a) and (b)]

List of Hazardous chemicals for Application of rules 5 & 7 to 15

(a) The quantities set out below relates to each installation or group of installations belonging to the same occupier where the distance between the installations is not sufficient to avoid in unforeseeable circumstances, any aggravation of major accident hazards. These quantities apply in any case to each group of installations belonging to the same occupier where the distance between the installations is less than 500 metres.

(b) For the purpose of determining the quantity of a hazardous chemical in an industrial installation, account shall also be taken of any hazardous chemical which is —

(i) in that part of any pipeline under the control of the occupier having control of the site, which is within 500 metres of that site and connected to it;

(ii) at any other site under the control of the same occupier any part of the boundary of which is within 500 metres of the said site; and

(iii) in any vehicle, vessel, aircraft or hovercraft under the control of the same occupier which is used for storage purpose either at the site or within 500 metres of it,

but no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft used for transporting it.

SCHEDULE 3 (Cont.)

PART I NAMED CHEMICALS

Sl. No.	Chemical	Quantity		CAS Number
		For application of rules 5, 7 to 9 & 13 to 15	For application of rules 10 to 12	
(Col. 1)	(Col. 2)	(Col. 3)	(Col. 4)	(Col. 5)
	Group 1 — Toxic Chemicals			
1.	Aldicarb	100 kg		116-06-3
2.	4-Aminodiphenyl	1 kg		92-67-1
3.	Amiton	1 kg		78-53-5
4.	Anabasine	100 kg		494-52-0
5.	Arsenic pentoxide, Arsenic (v) acid & salts	500 kg		
6.	Arsenic trioxide, Arsenious (III) Acid and salts	100 kg		
7.	Arseine (Arsenic hydride)	10 kg		7784-42-1
8.	Azinphos-Ethyl	100 kg		2642-71-9
9.	Azinphos-methyl	100 kg		86-50-0
10.	Benzidine	1 kg		92-87-5
11.	Benzidine salts	1 kg		
12.	Beryllium (Powders, compounds)	10 kg		
13.	Bis (2-chloroethyl) sulphide	1 kg		505-60-2
14.	Bis (chloromethyl) ethe	1 kg		542-88-1
15.	Carbofuran	100 kg		1563-66-2
16.	Carbophenothion	100 kg		786-19-6
17.	Chlorfenvinphos	100 kg		470-90-6
18.	4-(chloroformyl) morpholine	1 kg		15159-40-7
19.	Chloromethyl methyl ether	1 kg		107-30-2
20.	Cobalt metal, oxides, carbonates, sulphides as powders	1 t		
21.	Crimidine	100 kg		535-89-7
22.	Cyanthoate	100 kg		3734-95-0
23.	Cycloheximide	100 kg		66-81-9
24.	Demeton	100 kg		8065-48-3
25.	Dialifos	100 kg		10311-84-9
26.	oo-Diethyl S-ethylsulphinyl methyl phosphorothioate	100 kg		2588-05-8
27.	oo-Diethyl S-ethylsulphonyl methyl phosphorthioate	100 kg		2588-06-9
28.	oo-Diethyl S-ethylthiomethyl phosphorodithioate	100 kg		2600-69-3
29.	oo-Diethyl S--isopropylthiomethyl phosphorodithioate	100 kg		78-52-4
30.	oo-Diethyl S-propylthiomethyl	100 kg		3309-68-0
31.	Dimefox	100 kg		115-26-4
32.	Dimethylcarbamoyl chloride	1 kg		79-44-7
33.	Dimethylnitrosamine	1 kg		62-75-9
34.	Dimethyl phosphoramidocyanidic acid	1 t		63917-51-9
35.	Diphacinone	100 kg		82-66-6
36.	Disulfoton	100 kg		298-04-4
37.	EPN	100 kg		2104-64-5
38.	Ethion	100 kg		563-12-2
39.	Fensulfothion	100 kg		115-90-2
40.	Fluenetil	100 kg		4301-50-2
41.	Fluoroacetic acid, salts	1 kg		4144-49-0
42.	Fluoroacetic acid, salts	1 kg		
43.	Fluoroacetic acid, esters	1 kg		
44.	Fluoroacetic acid, amides	1 kg		
45.	4-Fluorobutyric acid	1 kg		462-23-7
46.	4-Fluorobutyric acid, salts	1 kg		
47.	4-Fluorobutyric esters	1 kg		
48.	Fluorobutyric acid, amides	1 kg		
49.	4-Fluorocrotonic acid	1 kg		37759-72-1
50.	4-Fluorocrotonic acid, salts	1 kg		
51.	4-Fluorocrotonic acid, esters	1 kg		
52.	4-Fluorocrotonic acid, amides	1 kg		
53.	4-Fluoro-2-hydroxybutyric acid	1 kg		
54.	4-Fluoro-2-hydroxybutyric acid, salts	1 kg		
55.	4-Fluoro-2-hydroxybutyric acid, esters	1 kg		
56.	4-Fluoro-2-hydroxybutyric acid, amines	1 kg		
57.	Glycolonitrile (hydroxyacetonitrile)	100 kg		107-16-4
58.	1, 2, 3, 7, 8, 9-Hexachlorodibenzo-p-dioxin	100 kg		19408-74-3
59.	Hexamethylphosphoramide	1 kg		680-31-9
60.	Hydrogen selenide	10 kg		7783-07-5
61.	Isobenzan	100 kg		297-78-9
62.	Isodrin	100 kg		465-73-6
63.	Juglone (5-Hydroxynaphthalene-1, 4-dione)	100 kg		481-39-0
64.	4, 4'-Methylenebis (2-chloroaniline)	10 kg		101-14-4
65.	Methyl isocyanate	150 kg	150 kg	624-83-9
66.	Mevinphos	100 kg		7786-34-7
67.	2-Naphthylamine	1 kg		91-59-8
68.	Nickel metal, oxides, carbonates, sulphide, as powders	1 t		
69.	Nickel tetracarbonyl	10 kg		13463-39-3
70.	Oxydisulfoton	100 kg		2497-07-6
71.	Oxygen difluoride	10 kg		7783-41-7
72.	Paraoxon (diethyl 4-nitrophenyl phosphate)	100 kg		311-45-5
73.	Parathion	100 kg		56-38-2
74.	Parathion-methyl	100 kg		298-00-0
75.	Pentaborane	100 kg		19624-22-7

(Col. 1)	(Col. 2)	(Col. 3)	(Col. 4)	(Col. 5)
76.	Phorate	100 kg		298-02-2
77.	Phosacetim	100 kg		4104-14-7
78.	Phosgene (carbonyl chloride)	750 kg	750 kg	75-44-5
79.	Phosphamidon	100 kg		13171-21-6
80.	Phosphine (Hydrogen phosphide)	100 kg		7803-51-2
81.	Promurit (1-(3, 4-Dichlorophenul)-3-triazenethio carboxamide)	100 kg		5836-73-7
82.	1, 3-Propanesultone	1 kg		1120-71-4
83.	1-Propen-2-chloro-1, 3-did discetate	10 kg		10118-72-6
84.	Pyrazoxon	100 kg		108-34-9
85.	Selenium hexafluoride	10 kg		7783-79-1
86.	Sodium selenite	100 kg		10102-18-8
87.	Stibine (Antimony hydride)	100 kg		7803-52-3
88.	Sulfotop	100 kg		3689-24-5
89.	Sulphur dichloride	1 t		10545-99-0
90.	Tellurium hexafluoride	100 kg		7783-80-4
91.	TEPP	100 kg		107-49-3
92.	2, 3, 7, 8-Tetrachlorodibenzo-p-dioxin (TCDD)	1 kg		1746-01-6
93.	Tetramethylenedisulphotetramine	1 kg		80-12-6
94.	Thionazin	100 kg		297-97-2
95.	Tirpate (2, 4-Dimethyl-1, 3-dithiolane-2-carboxaldehyde O-methylcarbomoy loxime)	100 kg		26419-73-8
96.	Trichloromethanesulphenyl chloride	100 kg		594-42-3
97.	1-Tri (cyclohexyl) stannyl-1H-1, 2, 4-triazole	100 kg		41083-11-8
98.	Triethylenemelamine	10 kg		51-18-3
99.	Warfarin	100 kg		81-81-2
	Group 2-Toxic chemicals (Quantity > 1 tonne)			
100.	Acetone cyanchydrin (2-cyanopropan-2-01)	200 t		75-86-5
101.	Acrolein (2-Propenal)	20 t		107-02-8
102.	Acrylonitrile	20 t	200 t	107-13-1
103.	Allyl alcohol (2-Propen-1-01)	200 t		107-18-6
104.	Allylamine	200 t		107-11-9
105.	Ammonia	50 t	500 t	7664-41-7
106.	Bromine	40 t		7726-95-6
107.	Carbon disulphide	20 t	200 t	75-15-0
108.	Chlorine	10 t	25 t	7782-50-5
109.	Diphyenl methane di-isocyanate (MDI)	20 t		101-68-8
110.	Ethylene dibromide (1, 2-Dibromomethane)	5 t		106-93-4
111.	Ethyleneimine	50 t		151-56-4
112.	Formaldehyde (Concentration >= 90%)	5 t		50-00-0
113.	Hydrogen chloride (liquefied gas)	25 t	250 t	7647-01-0
114.	Hydrogen cyanide	5 t	20 t	74-90-8
115.	Hydrogen fluoride	5 t	50 t	7664-39-3
116.	Hydrogen sulphide	5 t	50 t	7783-06-4
117.	Methyl bromide (Bromomethane)	20 t		74-83-9
118.	Nitrogen oxides	50 t		11104-93-1
119.	Propyleneimine	50 t		75-55-8
120.	Sulphur dioxide	20 t	250 t	7446-09-5
121.	Sulphur trioxide	15 t	75 t	7446-11-9
122.	Tetraethyl lead	5 t		78-00-2
123.	Tetramethyl lead	5 t		75-74-1
124.	Toluene di-isocyanate (TDI)	10 t		584-84-9
	Group 3-Highly reactive chemicals			
125.	a. Ammonium nitrate (1)	350 t	2500 t	6484-52-2
	b. Ammonium nitrate in the form of fertiliser (2)	1,250 t		
126.	Acetylene (ethyne)	5 t		74-86-2
127.	2, 2-Bis (tert-butylperoxy) butane (concentration >= 70%)	5 t		2167-23-9
128.	1, 1-Bis (tert-butylperoxy) cyclohexane (concentration >= 80%)	5 t		3006-86-8
129.	Tert-Butyl peroxyacetate (concentration >= 70%)	5 t		107-71-1
130.	Tert-Butyl peroxyisobutyrate (concentration > = 80%)	5 t		109-13-7
131.	Tert-Butyl peroxyisopropyl carbonate (concentration >= 80%)	5 t		2372-21-6
132.	Tert-Butyl peroxymaleate (concentration > = 80%)	5 t		1931-62-0
133.	Tert-Butyl peroxypivalate (concentration > = 77%)	50 t		927-07-1
134.	Dibenzyl peroxydicarbonate (concentration > = 90%)	5 t		2144-45-8
135.	Di-sec-butyl peroxydicarbonate (concentration > = 80%)	5 t		19910-65-7
136.	Diethyl peroxydicarbonate (concentration > = 30%)	50 t		14666-78-5
137.	2, 2-Dihydroperoxypropane (concentration > = 30%)	5 t		2614-76-8
138.	Di-isobutryl peroxide (concentration > = 50%)	50 t		3437-84-7
139.	Di-n-propyl peroxydicarbonate (concentration > = 80%)	5 t		16066-38-9
140.	Ethylane oxide	5 t	50 t	75-21-8
141.	Ethyl nitrate	50 t		625-58-1
142.	3, 3, 6, 9, 9 — Hexamethyl—1, 2, 4, 5 — tetroxacyclonane (concentration > = 75%)	50 t		22397-33-7
143.	Hydrogen	2 t	50 t	1333-74-0
144.	Liquid oxygen	200 t		7782-44-7
145.	Methyl ethyl ketone peroxide (concentration > =60%)	5 t		1338-23-4
146.	Methyl isobutyl ketone peroxide (concentration > =60%)	50 t		37206-20-5
147.	Peracetic acid (concentration > =60%)	50 t		79-21-0
148.	Propylene oxide	5 t		75-56-9
149.	Sodium chlorate	25 t		7775-09-9
	Group 4 — Explosive Chemicals			
150.	Barium azide	50 t		18810-58-7
151.	Bis (2, 4, 6—Trinito phenyl) amine	50 t		131-73-7
152.	Chlorotrinitrobenzene	50 t		28260-61-9
153.	Cellulos nitrate (containing 12.6% nitrogen)	50 t		9004-70-0
154.	Cyclotetramethylene tetranitramine	50 t		2691-41-0
155.	Cyclotrimethylenetri nitroamine	50 t		121-82-4
156.	Diazodinitrophenol	10 t		7008-81-3
157.	Diethylene glycol dinitrate	10 t		693-21-0
158.	Dinitrophenol, salts	50 t		
159.	Ethylene glycol dinitrate	10 t		628-96-6
160.	1—Gualyl—4—nitrosamineoguanyl—1—tetrazene	10 t		109-27-3
161.	2, 2', 4, 4', 6, 6' —Hexanitrostilbene	10 t		20062-22-0
162.	Hydrazine nitrate	50 t		13464-97-6
163.	Lead azide	50 t		13424-46-9
164.	Lead styphnate (lead 2, 4, 6—trinitroresorcinoxide)	50 t		15245-44-0

(Col. 1)	(Col. 2)	(Col. 3)	(Col. 4)	(Col. 5)
165.	Mercury fulminate	10 t		628-86-4
166.	N-Methyl-N, 2, 4, 6—tetranitroaniline	50 t		479-45-8
167.	Nitrogylcerine	10 t		55-63-0
168.	Pentaerythritol tetranitrate	50 t		78-11-5
169.	Picric acid (2, 4,6—Trinitrophenol)	50 t		88-89-1
170.	Sodium picramate	50 t		831-52-7
171.	Styphnic acid (2, 4, 6—Trinitroresorcinol)	50 t		82-71-3
172.	1, 3, 5—Triamino — 2, 4, 6—Trinitrobenzene	50 t		3058-38-6
173.	Trinitroaniline	50 t		26952-42-1
174.	2, 4, 6—Trinitroanisole	50 t		606-35-9
175.	Trinitrobenzene	50 t		25377-32-6
176.	Trinitrobenzoic acid	50 t		35860-50-5
177.	Trinitrocresol	50 t		28905-71-7
178.	2, 4, 6-Trinitrophenetole	50 t		4732-14-3
179.	2, 4, 6-Trinitrotoluene	50 t		118-96-7

Part - II Classes of Chemicals not specifically named in Part - I

Sl. No.	Classes of Chemicals	Quantity: For application of rules 5, 7 to 9 & 13 to 15	Quantity: For application of rules 10 to 12
(Col.1)	(Col.2)	(Col.3)	(Col.4)
	Group-5-Flammable Chemicals		
1.	Flammable gases: Chemicals which in gaseous state at normal pressure and mixed with air become flammable and the boiling point of which at normal pressure is 20°C or below;	15 t	200 t
2.	Highly flammable liquids: Chemicals which have a flash point lower than 23°C and the boiling point of which at normal pressure is above 20°C;	1 000 t	50 000 t
3.	Flammable liquids: Chemicals which have a flash point lower than 65°C and which remain liquid under pressure, where particular processing conditions, such as high pressure and high pressure and high temperature, may create major accident hazards.	25 t	200 t

Footnotes:

(1) This applies to ammonium nitrate and mixtures of ammonium nitrate where the nitrogen content derived from the ammonium nitrate is greater than 28% by weight and aqueous solutions of ammonium nitrate where the concentration of ammonium nitrate is greater than 90% by weight.

(2) This applies to straight ammonium fertilisers and to compound fertilisers where the nitrogen content derived from the ammonium nitrate is greater than 28% by weight (a compound fertiliser contains ammonium nitrate together with phosphate and/or potash).

*CAS Number (Chemical Abstracts Service Number) means the number assigned to the chemical by the Chemical Abstracts Service.

SCHEDULE 4

[*See* Rule 2(b) (1)]

Industrial Installation within the Meaning of rule 2(b) (i)

1. Installations for the production, processing or treatment of organic or inorganic chemicals using for this purpose, among others:

(a) alkylation
(b) amination by amonolysis
(c) carbonylation
(d) Condensation
(e) dehydrogenation
(f) estefication
(g) halogenation & manufacture of halogens
(h) hydrogenation
(i) hydrolysis
(j) oxidation
(k) polymerization
(l) sulphonation
(m) desulphurization, manufacture and transformation of sulphur-containing compounds
(n) nitration and manufacture of nitrogen-containing compounds
(o) manufacture of phosphorous-containing compo nds
(p) formulation of pesticides and of pharmaceutical products
(q) distillation
(r) extaction
(s solvation
(t) mixing

2. Installations for distillation, refining or other processing of petroleum or petroleum products.

3. Installations for the total or partial disposal of solid or liquid chemicals by incineration or chemical decomposition.

4. Installations for the production, processing, or treatment of energy gases, for example, LPG, LNG, SNG.

5. Installations for the dry distillation of coal or lignite.

6. Installations for the production of metals or non-metals by a wet process or by means of electrical energy.

SCHEDULE 5

[*See* rule 3(2) and (3)]

Form of material safety data sheet

1. *Chemical Identity*

Chemical Name	Chemical classification
Synonyms	Trade Name
Formula	C.A.S. No. U.N.No.:
Shipping Name Codes/Label	Hazchem No.:
Regulated indentification	Hazardous waste I.D. No.:

Hazardous ingredients	C.A.S. No.	Hazardous Ingredients	C.A.S. No.
1.		3.	
2.		4.	

2. *Physical and Chemical Data*

Boiling Range/Point °C	Physical State	Appearance
Melting/Freezing Point °C	Vapour pressure at 35°C mm Hg	Odour
Vapour Density (Air=1)	Solubility in water at 30°C	Others

Specific Gravity Water=1	pH

3. *Fire and Explosion Hazard Data*

Flammability Yes/No	LEL	%	Flash point °C	Autoignition °C Temperature
TDG Flammability	UEL	%	Flash point °C	Hazardous Combustion Products
Explosion Sensitivity to Impact			Explosion Sensitivity to Static Electricity	
Hazardous Polymerisation				
Combustible Liquid	Explosive Material		Corrossive Material	
Flammable Material	Oxidiser		Others	
Pyrophoric Material	Organic Peroxide			

4. REACTIVITY DATA

Chemical Stability
Incompatibility with other Material
Reactivity
Hazardous Reaction Products

5. HEALTH HAZARD DATA

Routes of Entry					
Effects of Exposure/Symptoms					
Emergency Treatment					
TLV(ACGIH)	ppm	mg/m³	STEL	ppm	mg/m³
Permissible Exposure Limit LD 50	ppm	mg/m³	Odour Threshold LD 50	ppm	mg/m³
NFPP Hazard Signals	Health		Flamma-bility	Stability	Special

6. PREVENTIVE MEASURES

Personnel Protective Equipment
Handling and Storage Precautions

7. EMERGENCY AND FIRST AID MEASURE

FIRE	FIRE EXTINGUISHING MEDIA
FIRE	Special Procedures
	Unusual Hazards
EXPOSURE	First Aid Measures
	Antidotes/Dosages
SPILLS	Steps to be taken
	Waste Disposal Method

8. ADDITIONAL INFORMATION/REFERENCES

9. MANUFACTURER/SUPPLIERS, DATA

Name of Firm Mailing address Telephone/telex Nos. Telegraphic Address	Contact person in Emergency
	Local Bodies involved
	Standard Packing
	Tramcard Details/Ref.
	Other

10. DISCLAIMER

Information contained in this material data sheet is believed to be reliable but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. It is upto the manufacturer/seller to ensure that the information contained in the material safety data sheet is relevant to the products manufactured/ handled or sold by him as the case may be. The Government makes no warranties expressed or implied in respect of the adequacy of this document for any particular purpose.

SCHEDULE 6

[*See* rule 5 (1)]

Information to be furnished regarding Notification of a major accident

Report Number ...
of the particular accident.

1. General data
   (a) Name of the site
   (b) Name and address of the occupier (Also state the telephone/telex Number)
   (c) (i) Registration Number
   (ii) Licence Number (As may have been allotted under any statute applicable to the site, e.g. the Factories Act)
   (d) (i) Nature of industrial activity (Mention what is actually manufactured, stored, etc.)
   (ii) National industrial classification 1987 at the four digit level ☐☐☐☐

2. Type of major accident
   Explosion ☐ Fire ☐ Emission of hazardous chemicals ☐

3. Description of the major accident
   (a) Date, shift and hour of the accident
   (b) Department/Section and exact place where the accident took place
   (c) The process/operation under taken in the Department/Section where the accident took place (Attach a flow chart, if necessary)
   (d) The circumstances of the accident and the hazardous chemical involved.

4. Emergency measures taken and measures envisaged to be taken to alleviate short-term effects of the accident.

5. Causes of the major accident ... .
Known
(to be specified) .....
.....
Not known .....
.....
Information will be supplied as soon as possible .....

6. Nature and extent of damage
(a) within the establishment
— casualties ..... killed
.... injured
.... Poisoned
— persons exposed to the major accident .....
.....
— material damage .....
— damage is still present .....
.....
— danger no longer exists .....
.....
(b) Outside the establishment
— casualties .... killed
.... Injured
.... Poisoned
— persons exposed to the major accident .....
— material damage
— damage to environment
— damage is still present
— danger no longer exists

7. Data available for assessing the effects of the accident on persons and environment

8. Steps already taken or envisaged
(a) to alleviate medium or long-term effects of the accident
(b) to prevent recurrence of similar major accident
(c) any other relevant information

SCHEDULE 7

[*See* rule 7(1)]

Information to be furnished for the Notification of Activities/Sites

Particulars to be included in a notification of site.

1. The names and addresses of the occupier making the notification.

2. The full postal address of the site where the notifiable industrial activity will be carried on.

3. The area of the site covered by the notification and of any adjacent site which is required to be taken into account by virtue of Schedule 2 (b) and Schedule 3 (b).

4. The date on which it is anticipated that the notifiable industrial activity will commence or if it has already commenced a statement to that effect.

5. The name and maximum quantity liable to be on the site of each hazardous chemical for which notification is being made.

6. Organisation structure, namely, organisation diagram for the proposed industrial activity and set up for ensuring safety and health.

7. Information relating to the potential for major accidents, namely —
(a) identification of major accident hazards;
(b) the condition of events which could be significant in bringing one about;
(c) a brief description of the measures taken.

8. Information relating to the site namely —
(a) a map of the site and its surrounding area to a scale large enough to show any features that may be significant in the assessment of the hazard or risk associated with the site;
(i) area likely to be affected by the major accident.
(ii) population distribution in the vicinity.
(b) a scale plan of the site showing the location and quantity of all significant inventories of the hazardous chemicals;
(c) a description of the processes or storages involving the hazardous chemicals, the maximum amount of such a hazardous chemical in the given process or storage and an indication of the conditions under which it is normally held;
(d) The maximum number of persons likely to be present on site.

9. The arrangement for training of workers and equipment necessary to ensure safety of such workers.

SCHEDULE 8

[*See* rule 10(1)]

Information to be furnished in a safety report

1. The name and address of the person furnishing the information.

2 Description of the industrial activity, namely—
(a) site,
(b) construction design,
(c) protection zones (explosion, protection, separation, distances),
(d) accessibility of plant,
(e) maximum number of persons working on the site and particularly of those persons exposed to the hazard.

3. Description of the processes, namely—
(a) technical purpose of the industrial activity,
(b) basic principles of the technological process,
(c) process and safety-related data for the individual process stages,
(d) process description,
(e) safety-related types of utilities.

4. Description of the hazardous chemicals, namely—
(a) chemicals (quantities, substance data on physical and chemical properties, safety-related data on explosive limits, flash-point, thermal stability, toxicological data and threshold limit values, ethal concentrations),
(b) the form in which the chemicals may occur or into which they may be transformed in the event of abnormal conditions,
(c) the degree of purity of the hazardous chemical.

5. Information on the Preliminary hazard Analysis, namely—
   (a) type of accident,
   (b) system elements or forseen events that can lead to a major accident,
   (c) hazards,
   (d) safety-relevant components.

6. Discription of safety-relevant units, among others;
   (a) special design criteria,
   (b) controls and alarms,
   (c) pressure relief systems,
   (d) quick-acting valves,
   (e) collecting tanks/dump tanks,
   (f) sprinkler systems,
   (g) fire protection.

7. Information on the hazard assessment, namely—
   (a) identification of hazards,
   (b) the causes of major accidents,
   (c) assessment of hazards according to their occurrence frequency,
   (d) assessment of accident consequences,
   (e) safety systems,
   (f) known accident history.

8. Description of information on organisational systems used to carry on industrial activity safely, namely—
   (a) maintenance and inspection schedules,
   (b) guidelines for the training of personnel,
   (c) allocation and delegation of responsibility for plant safety,
   (d) implementation of safety procedures.

9. Information on assessment of the consequences of major accidents, namely —
   (a) assessment of the possible release of hazardous chemicals or of energy,
   (b) possible dispersion of released chemicals,
   (c) assessment of the effects of the releases (size of the affected area, health effects, property damage).

10. Information on the mitigation of major accidents namely—
   (a) fire brigade;
   (b) Alarm systems;
   (c) emergency plan containing system of organisation used to fight the emergency, the alarm and the communication routes, guidelines for fighting the emergency, examples of possible accident sequences.
   (d) coordination with the District Collector or the District Emergency Authority and its off-site emergency plan,
   (e) notification of the nature and scope of the hazard in the event of an accident,
   (f) antidotes in the event of a release of a hazardous chemical.

By order and in the name of the Governor of Goa.

V. G. Manerkar, Under Secretary (Labour).

Panaji, 27th April, 1992.

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